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Optical Constants of Molybdenite in the Ultra-Violet

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such crystals against a standard metal is a function of the orientation of the crystal lattice. The method of growing the crystals is described and data are given on the thermoelectric power against copper of wires of various orientations.

STATE UNIVERSITY OF IOWA.

OPTICAL CONSTANTS OF MOLYBDENITE IN THE ULTRA-VIOLET

A. W. MEYER

(*ABSTRACT*)

The index of refraction and extinction index of molybdenite (MoS) for a natural cleavage surface have been determined in the ultra-violet by the crystalliptometer. The computed reflectivity is compared with the values directly determined by Coblenz.

STATE UNIVERSITY OF IOWA.

QUANTITATIVE MEASUREMENTS ON THE TRANSMISSION IN SOLID ACOUSTIC WAVE FILTERS WITH VARYING PHYSICAL DIMENSIONS

H. F. OLSON

(*ABSTRACT*)

The object of these experiments was to test the transmission of solid acoustic wave filters with the view to the establishment of empirical formulas to be used in future designs. The length of sections, the conductivity into the branch lines, and the volume of the branch lines were altered in the case of low-frequency-pass-filters. In all cases the variations produced effects that are analogous to those found with acoustic wave filters in fluids. But more than this, so far as a test has been made, the cut-off frequency is in agreement with the Stewart theory for fluids. This means that the phenomena is caused almost exclusively by the longitudinal waves. Moreover, recurring bands were found in high frequencies and these seemed to be in accord with the more extended theory of Stewart concerning the presence of such additional bands. The conclusion is that the acoustic wave filters in solids can be designated on the basis of the formulas obtained for fluids.

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